LETTER TO THE EDITOR

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Does age really matter in the choice of treatment for bladder cancer?

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Sir,

We would like to congratulate Noon *et al* (2013) on their work on the effect of patients' age on the outcome of surgery for bladder cancer (BC). In their elegant paper, the authors compared the risks of competing mortality and demonstrated that older patients with BC had significantly worse cause-specific mortality than younger ones. To evaluate outcomes with respect to patient age, they compared treatments by stratifying cohorts of high-risk BC patients according to age and demonstrated that intravesical bacillus Calmette-Guérin (BCG) for high-risk disease was used less frequently in the oldest patients. They concluded that clinicians should consider offering more aggressive treatment in older patients.

In order to confirm these findings and recommendations concerning the use of BCG in the elderly, we would like to share our experience of the effect of age on the outcomes of high-risk BC therapy. Analysing our extensive series of such patients treated at Padova University Hospital from 1995 to 2010, we focused on cases with primary high-risk BC (Ta-T1 HG and carcinoma *in situ*), who received immunotherapy with BCG as first treatment after complete transurethral resection of the cancer. BCG was demonstrated to be the most efficacious available treatment before radical cystectomy for these kinds of BC patients (Holmäng, 2013). We performed 6 weekly inductions of intravesical instillations of BCG and, after endoscopic evaluation, a monthly maintenance cycle for 1 year.

We used a low dose of BCG (27 mg), as reported in our historical study that first demonstrated the efficacy of this low dosage (Pagano *et al*, 1991), with significant reduction of side effects.

To obtain comparable data, we excluded patients who had previously undergone other types of chemotherapy (e.g., Mitomycin C, Epirubicin) or other therapies (thermotherapy, partial surgery). We included in our study only patients with bladder transitional cell carcinoma, excluding those with other histologic neoplasms or synchronous cancers of the upper urinary tract.

Analysing only cases with a follow-up of at least 24 months, we selected 343 patients (mean age 63.6 years, 28–88), 293 men and 50 women.

To evaluate whether age is a predictive factor of outcome of BCG treatment, we focused specifically on the response to immunotherapy treatment, evaluating disease-free survival (DFS: considered as the absence of recurrence of BC after BCG therapy) after a follow-up of 60 months, time to recurrence, progression of disease (defined as upstaging of BC) and interruption of treatment due to side effects.

Using Fisher's exact test, the Kruskall–Wallis test and Kaplan–Meier analysis (Figure 1), we found that the percentage of DFS was not statistically different in any of the examined age groups (<50, 50–59, 60–69, 70–79, $\geqslant 80$ years; $P = 0.94$). No difference was found with regard to gender ($P = 0.23$). Time to recurrence and progression of BC were also similar in the various age cohorts, with $P = 0.73$ and 0.77, respectively. Even in the cases with severe side effects, age did not influence the percentages in the various patient groups.

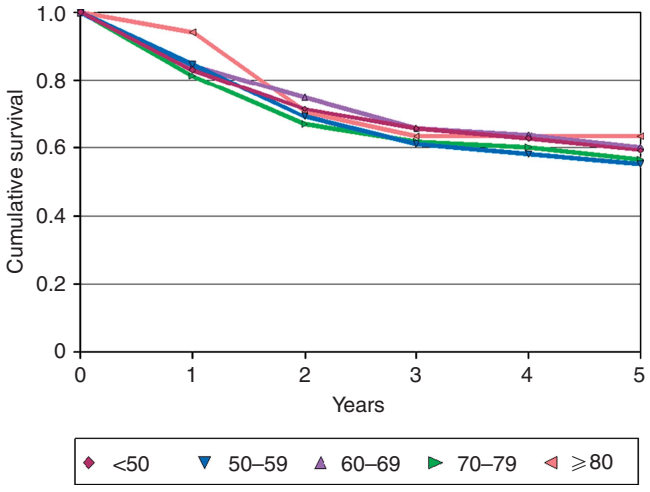

Figure 1. Kaplan–Meier curve for disease-free survival according to age groups.

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Our data indicate that, in patients with primary high-risk BC suitable for BCG treatment, age is not a factor predictive of recurrence or progression of disease. In addition, as emphasised by Noon *et al* (2013), our findings confirm that, when BCG therapy is indicated, it should also be performed in the elderly, because age does not seem to be a criterion indicating other less efficacious therapies.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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